

CHAPTER 3

TYPES OF POOLS

3-1. GENERAL.

The location, terrain, climate, source of water, and intended use determine the type of pool constructed.

3-2. FILL-AND-DRAW AND FLOW-THROUGH POOLS.

Fill-and-draw and flow-through pools which do not filter and recirculate the water are not approved for use at military installations.

3-3. RECIRCULATING POOLS.

a. Recirculating pools are pools in which the water is constantly pumped from the pool, filtered, disinfected, and pumped back into the pool. Water is added as needed to make up for losses due to evaporation, leakage, and water discharged to waste through overflow troughs. This is the most sanitary and economical type of pool and is the type approved for use at military installations. (See figures 3-1 and 3-2.)

b. The basic differences in recirculating pools, other than sizes and shapes, are in the perimeter overflow systems. The primary purpose of a pool overflow system is to provide a continuous skimming of the water surface. Overflow occurs as filtered water is added and as water is displaced by swimmers. This displaced water, containing much of the debris and other wastes, is usually returned through gutter drains to the filters; however, in some pools, the water is wasted. In some pools all the water recirculated through the filters is taken from the overflow system. In other pools, some or all of the recirculated water is taken from the main drain at the bottom of the pool. Pool overflow systems can be separated into the following three general categories:

3-4. TROUGH OR GUTTER TYPE.

Continuous gutters or troughs are constructed around the inside walls of the pool, either fully or partially recessed, or at the top of the wall in an open position (often called roll-out type gutters). (See figure 3-3.)

3-5. RIM FLOW TYPE.

This type of perimeter overflow system maintains the water at the level of the surrounding deck. No overflow troughs are used. Trenches are constructed in the deck surrounding the pool and adjacent to the pool wall. The

trenches are covered with metal gratings or tile with drain openings. The deck and the pool edge are sloped toward the perimeter drains. The deck can be easily cleaned, but care should be taken that any cleaning detergents used do not cause problems such as foaming in the recirculation system. (See figure 3-3.)

3-6. SURFACE SKIMMERS.

Surface skimmers are slots constructed in the wall of the pool at regular intervals of 15 to 25 feet. Within each wall opening there are floating weirs that control the water overflow. Surface skimmers allow about 6 inches between the water level and the deck level. Each overflow weir usually discharges into a cylindrical opening that has an access cover at the deck level and a pipe at the bottom to drain the pool overflow to the recirculation system. A removable leaf-strainer basket fits in the bottom of this overflow receiver. (See figure 3-3.)

3-7. WADING POOLS.

A wading pool is a shallow pool (usually 6 to 24 inches in depth) intended for use by children. Health hazards due to contamination are much greater in children's pools than in adult pools because of the unavoidable habits of small children. Because the quantity of water is small and a considerable amount of debris is often carried into the pool, wading pools require frequent draining and cleaning. Wading pools should have a continuous flow of treated water providing a complete change of water every two hours.

3-8. TYPES OF WADING POOLS.

Wading pools, like regular swimming pools, can be classified as flow-through, fill-and-draw, or recirculation type. The newest and most sanitary type of children's pool is the spray pool. Fresh or treated water is sprayed through a nearly vertical nozzle atop a 3 to 5 foot high pipe positioned near the center of the pool. By regulating the water pressure, all the sprayed water falls into the pool. A drain at the low point of the pool continuously discharges water to waste; therefore, no water accumulates in the wading pools. The conversion of wading pools to spray pools, which is comparatively easy, is highly recommended. (See figure 3-4.)

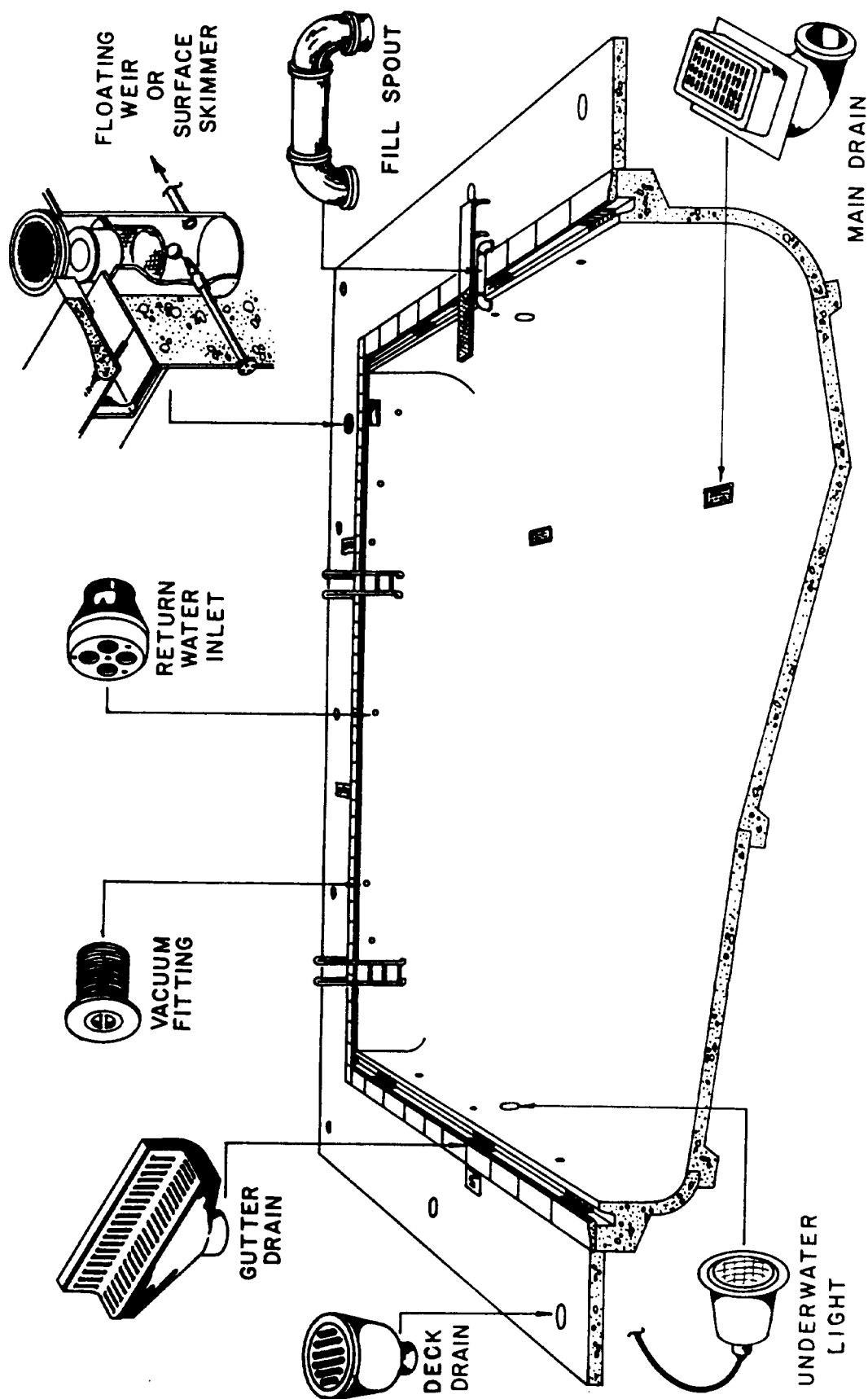


Figure 3-1. Longitudinal section through pool, showing fittings

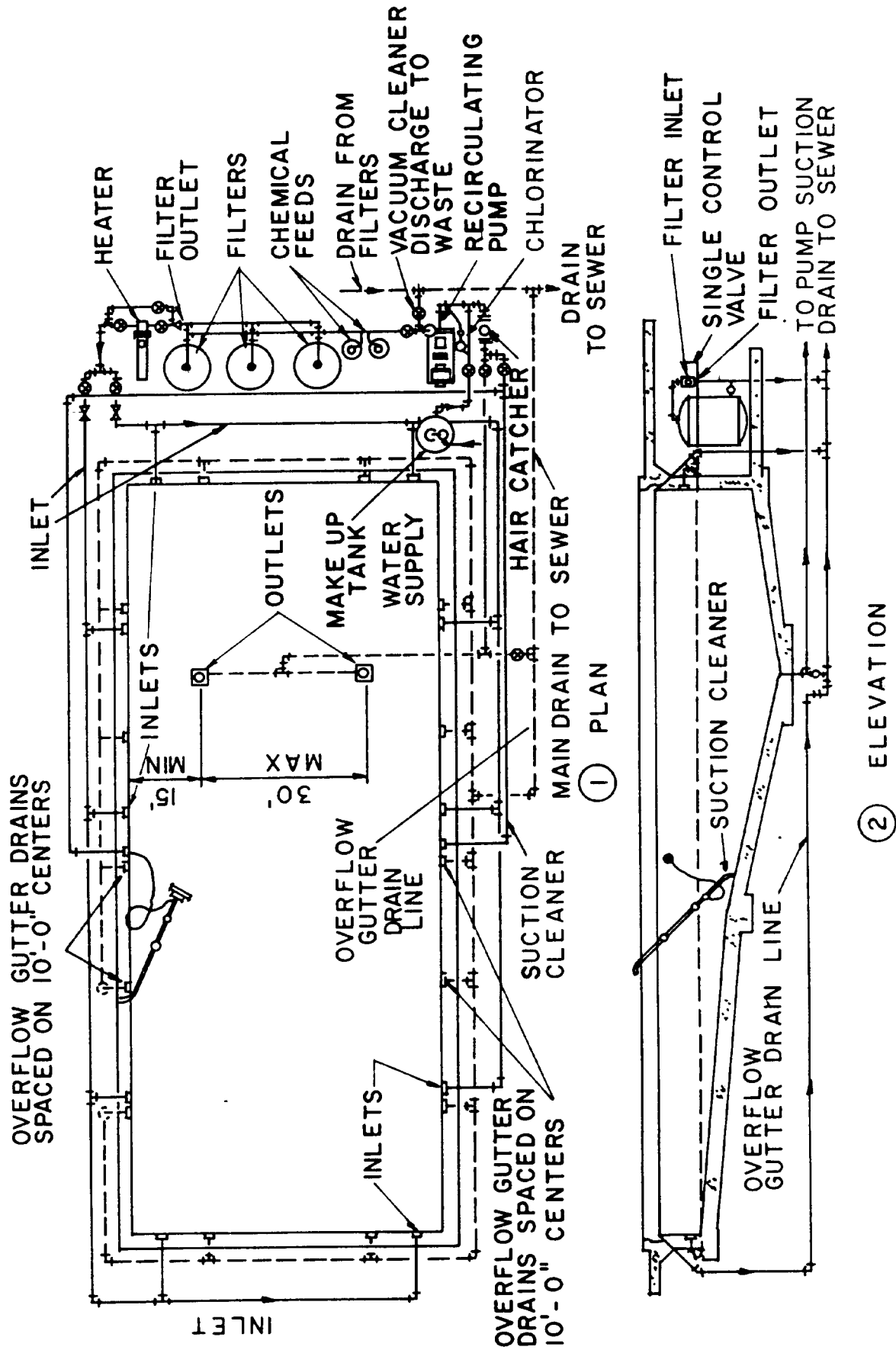


Figure 3-2. Typical recirculation pool and equipment

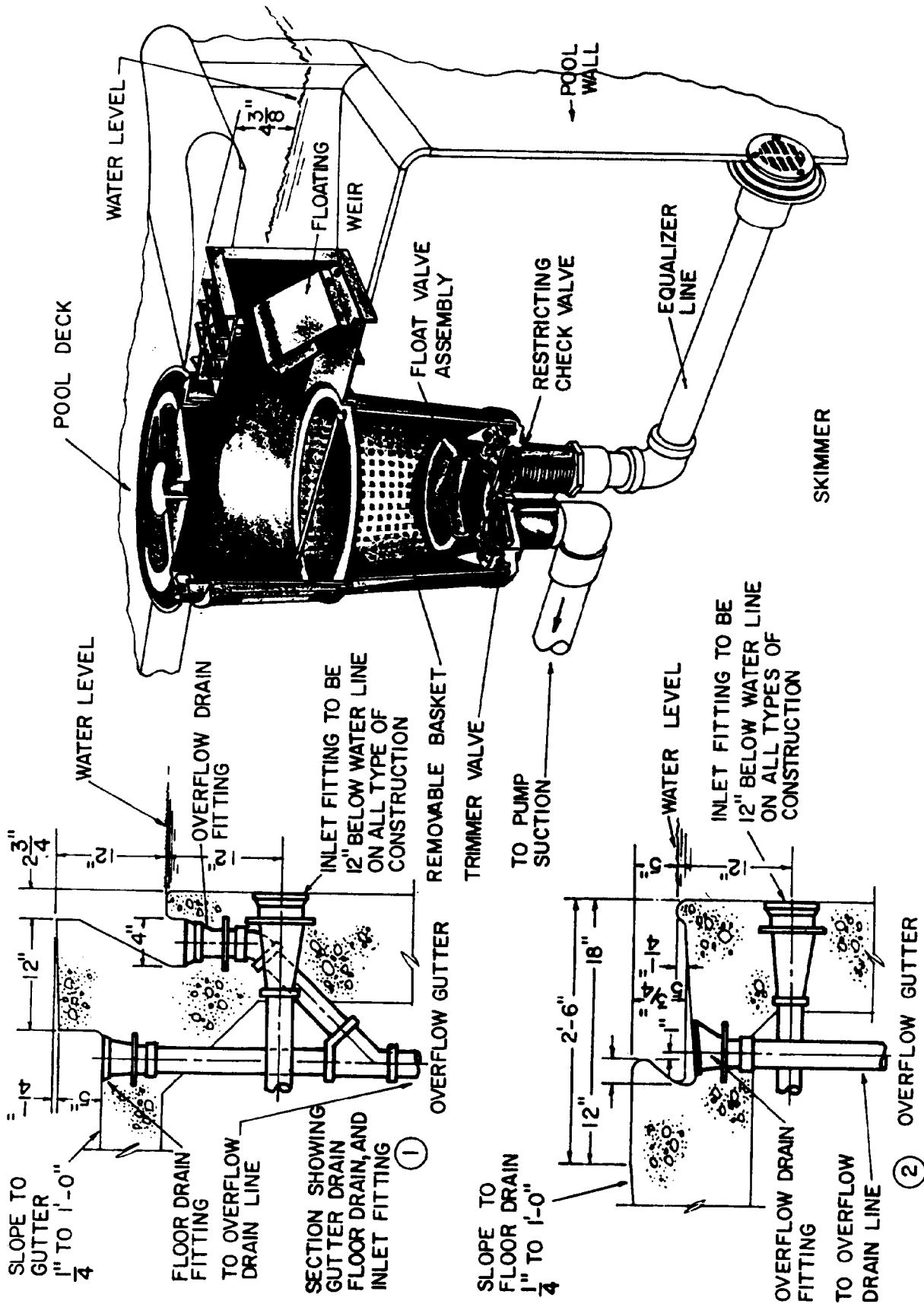


Figure 3-3. Overflow gutter and skimmer

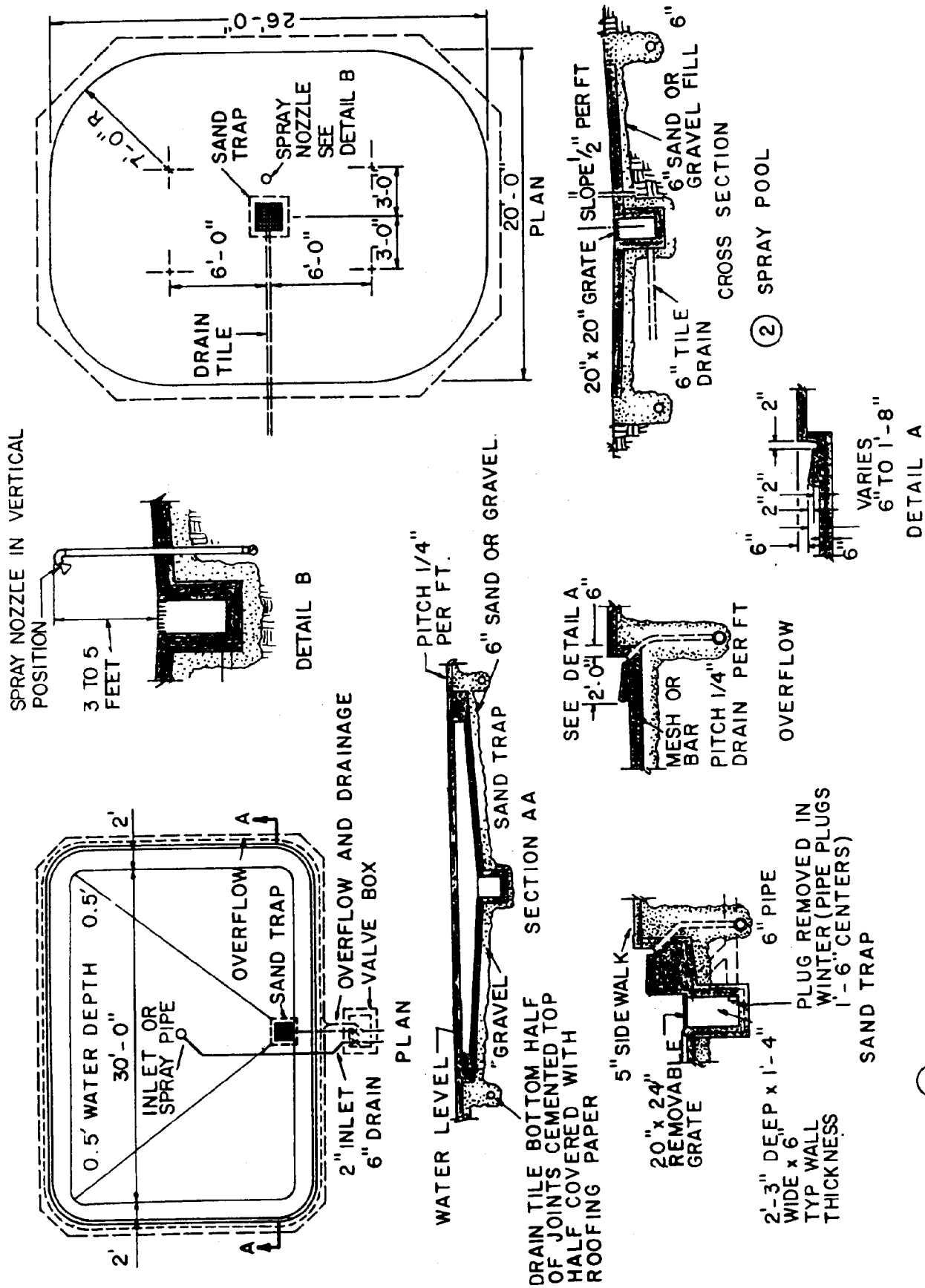


Figure 3-4. Typical children's pools